

CLAIMS

1. The use of NM23 protein to maintain undifferentiated biological cells in culture.
2. The use according to claim 1, wherein the NM23 protein acts as a survival factor for cultured cells.
3. The use according to claim 1, wherein the NM23 acts to prevent differentiation and maturation of cultured cells.
4. The use according to any preceding claim, wherein the cultured cells are selected from the group comprising stem cells and precursor cells.
5. The use according to any preceding claim, wherein the cultured cells are for therapeutic use.
6. The use according to any preceding claim, wherein the cultured cells are for non therapeutic use.
7. The use according to any preceding claim, wherein the cultured cells are selected from the group comprising mesenchymal cells, haematopoietic cells, cells of the central nervous system (CNS) and epidermal cells.
8. The use according to any preceding claim, wherein the cells are collected from the blood or bone marrow.
9. A method of preparing a biological cell for therapeutic use, the method comprising the consecutive or concurrent steps of:
 - iii) culturing the biological cell in the presence of NM23 protein; and
 - ii) adapting the biological cell for therapeutic use.
10. A method of therapy, the method comprising the consecutive or concurrent steps of:
 - iv) obtaining a biological cell;

- v) culturing the biological cell in the presence of NM23 protein; and
- vi) adapting the biological cell for therapeutic use

and further comprising administering the adapted biological cell to a subject in need of such therapy.

11. The method of claim 9 or claim 10, wherein the biological cell is a stem cell.
12. The method of claim 9 or claim 10, wherein the biological cells is a progenitor cell.
13. The method of any of claims 9 to 12, wherein the adaptation for therapeutic use comprises *ex vivo* expansion of biological cell numbers.
14. The method of any of claims 9 to 13, wherein the biological cell is selected from the group comprising mesenchymal cells, haematopoietic cells, cells of the central nervous system (CNS) and epidermal cells.
15. The method of any of claims 9 to 14, wherein the cells are collected from the blood or bone marrow.
16. The method of any of claims 9 to 15, wherein the adaptation for therapeutic use is an adaptation for use in gene therapy.
17. The method of any of claims 9 to 16, wherein the adaptation for therapeutic use is an adaptation for use in stem cell therapy.
18. The method of any of claims 9 to 17, wherein the adaptation for therapeutic use is an adaptation for use in immunotherapy.
19. The method of any of claims 9 to 18, wherein the adaptation for therapeutic use comprises *ex vivo* expansion of biological cell numbers.
20. The method of any of claims 9 to 19, wherein the biological cell is selected from the group comprising mesenchymal cells, haematopoietic cells, cells of the central nervous system (CNS) and epidermal cells.

21. The method of any of claims 9 to 19, wherein the cells are collected from the blood or bone marrow.
22. A cell culture medium for the promotion of cell survival in culture without differentiation, the medium being supplemented with NM23 protein.
23. A culture medium according to claim 22, wherein the cells to be cultured are selected from the group comprising mesenchymal cells, haematopoietic cells, cells of the central nervous system (CNS) and epidermal cells.
24. A culture medium according to claim 22, wherein the cells to be cultured are collected from the blood or bone marrow.
25. A culture medium according to any one of claims 22 to 24, wherein the medium comprises RPMI 1640 medium.
26. A culture medium according to any one of claims 22 to 24, wherein the medium comprises DMEM medium.
27. NM23 protein formulated for use as a supplement for a cell culture medium.